

Remarks

Claims 1-10 are currently pending in the application.

The foregoing amendment to the specification has been made on the basis of disclosure presented in Figure 1 as originally submitted that shows the flap portions of check valves 30 and 40 angularly disposed as described in greater detail below in connection with the specific grounds for rejection.

Claims 1-7 and 9 stand rejected under 35 U.S.C. 103(a) as unpatentable over Brumfield, U.S. Patent No. 4,574,828 in view of the teachings of Fritts, U.S. Patent No. 1,582,399. In summary, it is the Examiner's position that Brumfield shows all of the elements of Applicant's invention except the use of flapper valves and that Fritts shows such a valve that could be utilized in lieu of the ball valves disclosed in Brumfield.

It is initially pointed out that although the device of Brumfield performs essentially the same function as that of Applicant, it has at least one major shortcoming. This shortcoming is in the use of ball valves to obtain unidirectional flow. As stated and endlessly reiterated by Brumfield, sealing of the ball valves thereof occurs, "whenever the longitudinal axis of the tubes is at a greater angle to the horizontal than the selected angle of each conical seat to the longitudinal axis. (See Abstract lines 10-14 and 20-24, Column 1, lines 50-53, Column 2, lines 32-39,

Column 3, lines 1-9 etc. of Brumfield) Thus, the device of Brumfield is only operative when it is oriented in accordance with these numerous directives regarding the position of the device with respect to the angle of the conical seats of the ball valve. This is clearly not the case with the device of the instant invention which, because of the structure and interrelationship of the “flapper valves and their surrounding flat seats permits its operation in any orientation without regard to the angle of the valve seats which are flat. As clearly shown in Figure 1 of the instant application, when not in use the flap portions of the “flapper” valves of the present invention, because of their limited pivotal movement remain in position to be properly acted upon by fluid moved/moving through the device to allow for only unidirectional flow of a liquid within the device, all without regard to the angular orientation of the device. This clearly unlike the ball valve device of Brumfield that requires such careful orientation for proper operation. Absent such “limited pivotal travel” the device of the present invention would require the same operational orientation limitation as the device of Brumfield and also the proper “flapper” valve orientation discussed in Fritts as described below in connection with that reference.

Ignoring this clear distinction and in an attempt to overcome Brumfield’s lack of the use of a “flapper” valve. The Examiner cites Fritts that shows a flapper valve 25/26. Even in the case of Fritts, there is language that requires that, in order to properly function, the “flapper” valve of Fritts requires proper orientation. See Column 2, lines 75-78 that recites as follows, “...functions to support the valve for movement to open and closed positions, and because of the inclination of the valve

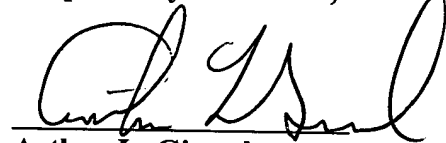
seat 28 (sic) the valve normally gravitates to closed position.” Thus, even the “flapper” valve of Fritts requires a proper orientation to operate properly. There being no such orientational requirement with the dual valve system of the present invention, as now clearly set forth with the foregoing amendment to the specification, it is respectfully submitted that Brumfield taken alone or in combination cannot be said to suggest the structural configuration of the present invention that makes this device of the present invention operational in all orientations.

In addition to the foregoing, it is respectfully submitted that the combination of Brumfield and Fritts is inherently improper. It is not simply enough for the Examiner to find a primary reference lacking in one or more elements and then to search to find an appropriate anticipating substitute for such element(s) in a similar prior art application. Indeed, there must be a suggestion in either the primary or secondary reference that such substitution would be possible/appropriate. No such suggestion is present in either Brumfield or Fritts. It is only in 20/20 hindsight with the teachings of the present invention before them that the skilled artisan would seek to combine the teachings of Fritts with those of Brumfield to obtain the device of the present invention, i.e. to substitute an orientation independent flap valve for the ball valves of the device of Brumfield. This in addition to the already recited need stated in Fritts for proper orientation of the flap for desired operation.

It is therefore respectfully submitted that rejection of the claims of the instant applications as obvious over Brumfield taken with Fritts is improper and that such rejection should be withdrawn.

In view of the foregoing amendments to the specification and claims and the remarks presented hereinabove, it is respectfully submitted that the claims of the instant application stand in condition for allowance, and the same is respectfully requested at an early date.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Arthur L. Girard', written over a horizontal line.

**Arthur L. Girard
Registration No. 24,600**

**8310 Poplar Hollow Trail
Richmond, VA 23235
(804) 320-2964
FAX (804) 320-3092**